(06/14/2007)

Items Required for Final Plan Submission

1. Program Application Revisions (if applicable)

2. Special Provisions
- A. Each Non-Standard Pay Item needs a special provision
- B. Pay Item Name must match the estimate and plans exactly
- C. Pay Item Unit must be spelled out to match unit names of standard spec. book
- D. Maintaining Traffic
- E. HMA Application Estimate

3. Other Items
- A. Progress Clause
- B. Notice To Bidders For Utility Coordination
- C. Coordination Clause (if needed)

4. Estimate
- A. List of Pay Items (updated from GI)
- B. Breakdown between Bridge and Approach Pay Items
  1. Participating Road Pay Items
  2. Participating Bridge Pay Items
  3. Non-Participating Road Pay Items
  4. Non-Participating Bridge Pay Items
- C. Pay Codes for each Pay Item

5. Plans – Submit 11” x 17” OR 24” x 36” Plan Sheets.
- A. Title Sheet
  1. Traffic Data (present & future ADTs, posted & design speeds, % commercial)
  2. Township, Section, and Range
  3. Utility Companies List (if not on site sheet)
  4. List of Standard Plans / Special Details
  5. Index of Plan Sheets
  6. Project Titles
     - a) Local Agency
     - b) State Bridge Number
     - c) Job Number
     - d) Control Section
     - e) Federal Project Number (if federal funds apply)
     - f) Federal Item Number (if federal funds apply)
  7. Map of Bridge Location (include detour route if not shown elsewhere)
  8. Notes: All applicable MDOT Design Manual notes.
  9. **Title/Signature Block (signed and sealed by designer and local agency rep.)**
  10. Erosion Control Items and Legend (if not shown on site or structure sheet)
  11. Bridge Structure Number & Job Number on all sheets
  12. Design Loading

B. General Plan of Site
   1. Plan View of Project
      a) Right of Way Limits
      b) Slope Stake Line
      c) Easements Labeled
         1) Permanent Easements
         2) Grading Permits
      d) Stations Shown (include P.O.B. & P.O.E.)
      e) Utilities
      f) Flow direction and name of water course (if applicable)
      g) North Arrow
      h) Layout of Bridge
         1) deck
         2) approach
         3) wingwalls
         4) guardrail
      i) Survey and Construction Centerlines
      j) Horizontal Alignment and/or Alignment Diagram
      k) Outline of Existing Bridge
      l) Erosion Control w/ Legend (if not shown on title or structure sheets)
      m) Topography

   2. Elevation View
      a) Vertical Alignment
         1) All vertical curve data
            a) Grade Left
            b) Grade Right
            c) Length
            d) K value computed
         2) Existing and Proposed Alignments
         3) Existing Grades just outside the P.O.B. & P.O.E.
      b) Span Lengths
      c) Reference Point Stations and Elevations
      d) Project Limits (include labels for P.O.B. and P.O.E.)
      e) Bottom of Abutment, Pier Footing Elevations
      f) Pile Information: Capacity and Type (if applicable)
      g) Water Surface Information (survey elevation & date and 100 year elevation)
      h) Rip Rap
      i) Stations and Elevations
      j) Proposed Low Beam Elevation
   3. Benchmark Box
   4. Existing Structure Information
   5. Control Points or Horizontal Tie Points
   6. Notes: All that pertain from the MDOT Design Manual
   7. Title Block with Bridge Number(s) and Job Number(s)
   8. Construction Staging Details (if applicable)

C. Log of Borings (*see current AASHTO Standard Specifications for Highway Bridges, Section 4 – Foundations, Subsurface Exploration - General Requirements for minimum depth and minimum coverage*)

1. Soil Profile
   a) Soil Strata
   b) Blow Counts with three 6" increments
   c) Elevations shown, not depths
2. Pile Information (if applicable)
   a) Bottom of Footing Elevations (abutments and piers)
   b) Bottom of Tremie Elevations (if necessary)
   c) Minimum Pile Penetration Elevations
   d) Estimated Pile Penetration Elevations
   e) Total Scour Elevations
3. Notes: All that pertain from MDOT Bridge Design Manual
4. Soil Boring Diagram indicating locations of borings

D. General Plan of Structure

1. Plan View of Structure
   a) Lane and Shoulder Widths dimensioned
   b) Clear Roadway dimensioned
   c) Angle of Crossing shown
   d) Reference Points: Stations and Elevations
   e) Guardrail Details shown
   f) Rip Rap shown (if applicable)
   g) Slope Stake Line
   h) Permanent Easements and Grading Permits shown
   i) Survey and Construction Centerline shown
   j) Slope Steepness indicated
   k) Erosion Control shown (if not shown on Site sheet)
   l) Right of Way Limits shown and dimensioned
   m) Cofferdam Layout (if applicable)
2. Elevation View of Structure
   a) Railing Type shown
   b) Beam Type indicated (if applicable)
   c) Berm Elevation shown
   d) Water Elevations shown
      1) Elevation at Date of Survey
      2) 100 year Elevation
   e) Rip Rap shown, include degree of slope
   f) Cofferdams shown
   g) Piles shown
      1) Type shown
      2) Capacity shown
   h) Abutments and Pier(s) shown
      1) Bottom of Tremie Elevations
      2) Bottom of Footing Elevations
   i) Guardrail Layout and Type

j) Approach Type Information
k) Bearing Fixity
l) Vertical Underclearance (if grade or railroad separation)
m) Span Lengths
n) Overall Bridge Length

3. HMA Application Table

4. Hydraulic Table – To be completed for river/drain crossings, as shown in the MDOT Bridge Design Manual, with the following data.
   a) 50 Year Data
   b) 100 Year Data

5. Typical Bridge Cross Section
   a) Lane and Shoulder Widths shown: include centerline label
   b) Shoulder to Fascia Distances dimensioned
   c) Centerline to Fascia Distances dimensioned
   d) Out to Out of Fascia dimensioned
   e) Deck Material and Thickness shown
   f) Deck Cross Slope shown
   g) Railing Type indicated
   h) Number and Type of Beam shown
   i) Earth Slopes shown (include existing and proposed)
   j) Rip Rap shown
   k) Pile Type and Capacity shown (include pile batter)
   l) Limits of Backfill and Excavation shown
   m) Cofferdams shown

6. Typical Section Through Abutment / Pier
   a) Deck Type shown
   b) Beam Type shown
   c) Reference Lines shown
   d) Approach Material shown (abutments)
   e) Rip Rap shown
   f) Limits of Backfill and Excavation
   g) Berm Elevations (abutments)
   h) Bottom of Tremie Elevations
   i) Bottom of Footing Elevations shown
   j) Pile Type, Capacity and Batter shown
   k) Cofferdams shown
   l) Dimensions of Abutments and Piers
      a) widths
      b) minimum/maximum heights

7. Typical Section Through Wingwall
    a) Show all dimensions
        1) widths
        2) minimum/maximum heights
    b) Limits of Backfill and Excavation
    c) Pile information
        1) Capacity
        2) Type
        3) Batter

8. Approach Typical
    a) Lane and Shoulder widths
    b) Guardrail Type
    c) Road/Subbase Material

9. Rip Rap Header Details (if applicable)
    a) Toe Header Dimensions w/ geotextile liner
    b) Side Header Dimensions w/ geotextile liner

10. Notes: All that pertain from the MDOT Design Manual

E. Detail sheets including

1. Substructure Details
    a) Abutment Details
    b) Pier Details
    c) Pile Details

2. Beam Details
    a) Prestressed Beam Details (resteel, strands, etc.)
    b) Steel Beam Details

3. Superstructure Details

4. Deck Rehab or Replacement Details

5. Slab and Screed Details

6. Steel Reinforcement Details (Bar Schedule)

F. Existing Plans (if available) For Info. Only

G. Quantity Summary Sheet